

SEAT ENERGY ABSORBER

CLAIMS

1. A mechanical device consisting of a seat lower base (pedestal) and a bracket attached to the vehicle floor. The attachment between the seat base and bracket permits sliding movement of the integral belted seat and occupant relative to the vehicle floor, thereby dissipating energy during a vehicle frontal collision and lower the g-force on both the belted occupant and the rear seated occupant who would impact the rear of the front seat frame.
2. A mechanical device as in feature 1 wherein the bracket is slotted and attached with a fastener such as a rivet or shoulder bolt to permit sliding travel.
3. A mechanical device as in feature 1 where the bracket is an L-cross section or U-cross section metal member.
4. A mechanical device as in feature 1 where the bracket is slotted with an interference fit to permit sliding movement at a prescribed force and continued resistance force.
5. A mechanical device in feature 1 where the sliding movement would have a break away feature to initiate sliding travel only at a predetermined force level.
6. A slide design in feature 1 where the slot is serrated to provide continued resistance force as a means to absorb energy during vehicle impact and seat travel.
7. A slide design as in feature 1 where the slot has a molded plastic insert that is "extruded" by the attachment rivet during seat to floor relative movement, thereby acting as an energy absorber.
8. A mechanical device consisting of a seat frame and pedestal where the energy absorber slot is located at the top of the pedestal instead of bottom of the pedestal to the floor.
9. A mechanical device as in feature 1 wherein the bracket has a slot that varies in size along its length, as by being narrowed or tapered from rear to front, to control the resistance force of

the rivets sliding forward, thereby absorbing energy in the prescribed manner to meet the school bus standard.